C50 PROBLEM

Consider the set of vectors from $\mathbb{C}^3$, $\boldsymbol{W}$, given below. Find a linearly independent set $\boldsymbol{T}$ that contains three vectors from $\boldsymbol{W}$ and such that $\langle \boldsymbol{W} \rangle = \langle \boldsymbol{T} \rangle$

Considere un conjunto de vectores de $\mathbb{C}^3$, $\boldsymbol{W}$, dados. Encuentre un conjunto $\boldsymbol{T}$ linealmente independiente que contenga tres vectores de $\boldsymbol{W}$ tales que $\langle \boldsymbol{W} \rangle = \langle \boldsymbol{T} \rangle$

$$\boldsymbol{W} = \{\boldsymbol{V}_1, \boldsymbol{V}_2, \boldsymbol{V}_3, \boldsymbol{V}_4, \boldsymbol{V}_5\} = \left\{ \begin{bmatrix} 2 \\ 1 \\ 1 \end{bmatrix}, \begin{bmatrix} -1 \\ -1 \\ 1 \end{bmatrix}, \begin{bmatrix} 1 \\ 2 \\ 3 \end{bmatrix}, \begin{bmatrix} 3 \\ 1 \\ 3 \end{bmatrix}, \begin{bmatrix} 0 \\ 1 \\ -3 \end{bmatrix} \right\}$$

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